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| 09/966,738 | 09/28/2001 | Michael Soemo | 2001P18038US | 3567 |

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Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

| EXAMINER |
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CALDWELL, ANDREW T

| ART UNIT | PAPER NUMBER |
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2142

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/966,738

Applicant(s)

SOEMO ET AL.

Examiner

Andrew Caldwell

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-39 and 47-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-39 and 47-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. <u>attached</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/12/05</u> . | 6) <input type="checkbox"/> Other: _____. |

Remarks

In view of the Appeal Brief filed on May 2, 2006, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below. To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

The Applicants are requested to update the reference on page 7 of the specification to the related application. The related application should be identified by serial number.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Although the claims are directed

Art Unit: 2142

to a protocol, the claims specify particular devices that practice the protocol. These devices are not shown in the figures. Therefore, with respect to all claims, the application controller, a system point, a database, a control network, and a device controller must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. If this objection is traversed, the Applicant should pay particular attention to Figures 1-3 when developing arguments as to why these features are shown.

Figures 1-3 is objected to under 37 CFR 1.78(o) because they lack suitable descriptive legends. For examples, see elements 114 of claim 2, element 116 of Figure 3 and elements 108 of Figs. 1-3. The Applicant should review all of the figures to ensure that they include suitable descriptive legends for all elements.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification is objected to under 37 CFR 1.75(d)(1) as failing to provide proper antecedent basis for the claimed subject matter. Although at page 5 lines 6-27, the specification includes what is essentially a rephrased version of the independent claims as originally filed, the specification does not make clear what structure as disclosed in the specification corresponds to the claim terminology. The Examiner would suggest appropriate amendments to the specification that would relate the claim terminology to the embodiments disclosed in the specification similar to what was contained in the Applicants' appeal brief.

The Summary of the Invention is objected to under 37 CFR 1.73 because it is not commensurate with the invention as currently claimed.

The specification is objected to under 37 CFR 1.52(b)(2)(iii) because, at pages 11-12, it contains multiple columns of text. The Applicants may want to consider adding new figures containing these mappings between Message Type and Message ID.

The specification is objected to under 37 CFR 1.52(a)(1)(v) because, at pages 8-9, the text labeling the columns of the table is shaded. Such text is not easily subject to optical character recognition as per the rule. The Applicants should consider converting Table 1 from the specification into a suitable figure without any shading.

If new figures are added, the Applicants are reminded to amend the Brief Description of the Drawings and the Background of the Invention to refer to the newly added figures.

Oath/Declaration

This application presents a claim for subject matter not originally claimed or embraced in the statement of the invention. Although the Applicant may have intended claims 47-53 to be similar to originally filed claim 11, claims 47-53 are not the same as claim 11. They include different limitations. A supplemental oath or declaration is therefore required under 37 CFR 1.67. The new oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02. The Applicants may request that this requirement be held in abeyance until after allowable subject matter is indicated in this application.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13, 15-39, and 47-53 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a protocol. Protocols are not tangible because they merely specify the format of data.

Art Unit: 2142

Although the Applicants' may claim a process using a protocol or a system implemented using a protocol, a claim to the protocol itself is not statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-13, 15-39, and 47-53 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for using the protocol in a LonTalk® environment, does not reasonably provide enablement for implementing the invention using another building automation and control network, such as a BACnet environment.

The amount of direction provided by the Applicants as to how implement their invention using a protocol other than LonTalk® is negligible. On page 8 lines 11-16 of the specification, the Applicants describe how their proprietary protocol is embedded in the explicit messages fields of LonTalk® messages. The Examiner fails to see where in the specification the Applicants have described how to implement their invention using any protocol other than LonTalk®.

As to the existence of a working example, the Applicants have provided no working example other than in the context of a LonTalk® environment. Although the Applicants have raised BACnet as an alternative building automation and control network (p. 2 lines 12-16), the remainder of the specification does not provide working examples using protocols other than LonTalk®.

As to the state of the prior art, two references, although they are not prior art, are particularly relevant. Swan describes how LonTalk®'s standard network variable types are "quite unlike" BACnet objects (p. 1). Swan describes how the means and messages by which LonTalk® standard network variable types are read and written are "quite unlike" BACnet services (p. 1). The BACnet FAQ describes how the BACnet and Echelon (i.e., LonTalk®) language are fundamentally different and devices using one of the languages can never interoperate directly with devices using the other (p. 3 "You mentioned that BACnet can use LonTalk®"). No evidence suggests that these fundamental differences between the two protocols have not always existed. It is therefore reasonable to infer that the state of the art at the time Swan and the BACnet FAQ were written existed at the time the invention was made. The state of the prior art would therefore suggest was such that a person of ordinary skill in the art would have been unable to make and use the claimed invention using any building automation and control protocol other than LonTalk®.

As to the breadth of the claims, they are written using generic terminology and are not limited to the LonTalk® protocol.

As to the level of predicatability in the art, it would suggest that the claimed invention is enabled since this art is predictable.

The first four factors listed above weigh against a conclusion that the claimed invention is enabled throughout its entire scope. The last factor would weigh in favor of a conclusion that the claimed invention is enabled throughout its entire scope. After weighing the evidence, the Examiner concludes that the state of the prior art is

Art Unit: 2142

particularly important. When a reference describes how fundamental differences exist between the two networks disclosed in the specification as possible embodiments of the "generic" protocol of the claims, the Examiner fails to see how the entire scope of the claim is enabled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5,8,10-13,15-16, 18-22, 25, 27-34, 36-39, and 47-51 are rejected under 35 U.S.C. 102(e) as being anticipated by Hite et al., U.S. Patent No. 6,763,040.

Regarding claims 1 and 47, they are rejected for the reasons given in the final Office action mailed on August 9, 2005. Regarding claims 1-5,8,10-13,15-16, 18-22, 25, 27-34, 36-39, and 47-53, they are rejected for the reasons given in the non-final Office action mailed on January 14, 2005. Regarding claims 48-51, the limitations introduced in these dependent claims are identical to those introduced in dependent claims 2-5. Since the reasons for rejection given for claims 2-5 apply equally to claims 48-51, those reasons will not be repeated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hite for the reasons given in the non-final Office action mailed on January 14, 2005.

Claims 6-7 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hite in view of Nason et al., U.S. Patent App. Pub. 2002/0174240. As to claims 6-7, they are rejected for the reasons given in the non-final Office action mailed on January 14, 2005. Regarding claims 52-53, the limitations introduced in these dependent claims are identical to those introduced in dependent claims 6-7. Since the

Art Unit: 2142

reasons for rejection given for claims 6-7 apply equally to claims 52-53, those reasons will not be repeated.

Claims 23-24, 26, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hite in view of Albert et al., U.S. Patent No. 6,775,692, for the reasons given in the non-final Office action mailed on January 14, 2005.

Claims 1 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes et al., U.S. Patent No. 6,073,110, in view of Hite et al., U.S. Patent No. 6,763,040, and the Admitted Prior Art.

Regarding claim 1, the preamble has been given patentable weight since the claim body refers back to the preamble. See "the application controller and "the applications" at lines 5-6. Rhodes teaches the invention substantially as claimed by disclosing a communication protocol for use in a system controller that includes an application controller (Fig. 1 elem. 20 control node) and a plurality of applications (Fig. 1 elems. 14 including applications 30) for controlling a plurality of device controllers (Fig. 2 elems. 24) on a control network (Fig. 1 elem. 22) using data relating to system points (Fig. 2 Zone data) that correspond to data variables in a data network. Rhodes teaches a plurality of predefined messages transmitted between the application controller and the applications for instructing the application controller to perform a function relating to

Art Unit: 2142

a select system point and for reporting to the applications in response to said instruction (col. 5 lines 29-51).

Rhodes does not teach a protocol wherein said communications protocol is a proprietary protocol; said plurality of messages include a discover message transmitted from the application to the application controller to determine whether the select system point is stored in a database of the application controller; a message identification field for identifying a select message from said plurality of messages; and a protocol identification field for identifying said select message as being transmitted via said proprietary protocol.

As to the limitation of a proprietary protocol, Hite teaches a proprietary protocol per the admission in the first complete paragraph on page 6 of the defective Appeal Brief filed on January 12, 2006. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rhodes, which is silent as to whether the protocol being used is proprietary or not, to use a proprietary protocol as taught by Hite. The Applicants' specification states that, in this art, proprietary protocols were the norm until recently (i.e., at the time the application was filed) and that use of nonproprietary protocols is increasing. A person of ordinary skill in the art at the time the invention was made would have known what the applicants admitted at page 2 lines 8-16. A person of ordinary skill in the art at the time the invention was made would therefore have reasonably inferred, based on the state of the art, that Rhodes, which was filed almost four years before this application, would use a proprietary protocol. It would therefore have been obvious to one of ordinary skill in the art at the time the

Art Unit: 2142

invention was made to modify Rhodes to use a proprietary protocol as taught by Hite based on logical reasoning from the APA.

As to the limitations of the protocol including a message identification field for identifying a select message from said plurality of messages and a protocol identification field for identifying said select message as being transmitted via said proprietary protocol, Rhodes is silent as to the details of the protocol being used. Hite, on the other hand, teaches these features (Fig. 11 elems. 670 and 690). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the protocol of Rhodes to use a protocol field identifying the protocol and a message field identifying a message as taught by Hite. This modification would have been obvious because identifying the protocol would allow multiple protocols to be supported and identifying the message would allow multiple messages to be supported, thus making the system expandable.

As to the limitation of the plurality of messages include a discover message transmitted from the application to the application controller to determine whether the select system point is stored in a database of the application controller, Hite teaches a discover message as claimed (Col. 33 lines 11-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made combine Hite's teaching regarding retrieving a list of online devices with the system of Rhodes by having the applications query the control node to determine which controlled devices are actually online. This combination would have been obvious because it would allow the system of Rhodes to determine which devices are online (Hite col. 33 lines 11-24).

Regarding claim 47, it is rejected for the reasons given with respect to claim 1.

Response to Arguments

The Applicants' arguments in Appeal Brief filed on May 2, 2006, with respect to the prior art rejections of the claims, have been fully considered and not deemed persuasive. The arguments are not directed to the claimed invention. Instead, they are directed to the claimed invention of a related application. As to the arguments raised in the defective Appeal Brief filed on January 12, 2006, the Examiner, although not required to, will address certain arguments raised therein. As to the argument that Hite fails to teach a discover message as claimed, the Applicants are directed to col. 33 lines 11-17. As to the argument that Hite fails to teach a system point stored in an application controller, the Applicants are directed to Fig. 5 elem. 106 and col. 6 lines 60-67.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Caldwell, whose telephone number is (571) 272-3868. The examiner can normally be reached on M-Th from 9:00 a.m. to 5:30 p.m. EST.

The fax number for Group 2100 is as follows:

Fax Responses: 571-273-8300

Art Unit: 2142

Any general inquiry relating to the status of this application can be answered using Patent Application Information Retrieval (PAIR) system, which is available at the USPTO web site. Any questions on using the PAIR system should be directed to the Patent Electronic Business Center toll free at (866) 217-9197.

A handwritten signature in black ink, appearing to read "Andrew Caldwell". The signature is fluid and cursive, with a large loop at the end.

Andrew Caldwell
Supervisory Patent Examiner
571-272-3868
July 18, 2005